BULLETIN OF THE DRYLANDS: PEOPLE, POLICIES, PROGRAMMES

HARAMATA

No. 37, August 2000

Sustaining rural livelihoods

pages 12-15

IN THIS ISSUE

No. 37 August 2000

Cover: Fishing on the River Niger, one of the opportunities for livelihood diversification in Central Mali.
Photo: Betty Press/Panos Pictures.

Editorial

Recipe for debt disaster

Take 7 of the world's richest countries (or 8 at a pinch).
Mix together well with £500 million of Okinawa spice.
Season with lashings of rhetoric on the need to fight poverty.
Add a dash of pity (not too much).
Keep in comfortable and calm conditions.
Allow hot air to escape at regular intervals.
Avoid at all costs any contact with agitation.
Serve up to the world's press with gusto!!

Thus was baked the pudding of self-interest and myopia by our world leaders at the G7+1 summit in Japan in July. Six months into the new millennium and hopes of the debt cancellation for the world's poorest nations seem dashed. Last year's plan adopted by the G7+1 at Cologne to channel debt relief through the World Bank and the IMF has placed even greater power in the hands of these institutions. The Highly Indebted Poor Country initiative which was meant to provide substantial help to the poorest and most debt-ridden countries of the world, is now being strangled by continued demands for 'structural adjustment' by the Washington clique. The poorest countries of the world face cardiac arrest through ill-thought out conditionalities and the hard push by western interests for total economic liberalisation.

Now is the time for new cooks to come forward with a re-written recipe book which casts dogma aside in favour of long term considerations of social development and moral imperatives.


Kay Churnush

Arguing genetics

Balanced judgement seems to be the main casualty in the battle of words and arguments surrounding the technology for genetically modified organisms (GMOs). As McHughen notes[1], the public debate on genetic modification (GM) is 'based on scientific misinformation and misunderstanding peppered with invective, and personal attacks'. The anti-GM proponents argue that the risks associated with these new methods are unknown, and will lead to increased economic power for Western agro-chemical companies. Those in favour keep insisting that the many millions more mouths there will be in future can only be fed by harnessing bio-technology to achieve a new 'green revolution'. They argue, with much indignation, that it is immoral of rich green campaigners in the West to deny access to this technology to poor farmers elsewhere.

Pragmatists argue that we now have the technology and cannot ignore it. We can't pretend it doesn't exist. The green revolution technologies which brought great increases in yields from the 1960s onwards have run up against their limits, so that new approaches are needed to boost harvests, especially in areas where conditions are marginal and less amenable to high levels of inputs. Of the 40 million hectares planted with GM crops in 1999, 15% were in developing countries (mainly China, India, South Africa, and Argentina) and this surface area is likely to grow and grow.

There are many areas – not just in crop production – where GM technologies could generate very great benefits, such as in trying to eradicate malaria. Rather, pragmatists argue, we need to see ways of managing the technology and ensuring that its great potential can be turned to the advantage of all farmers – not just those who have the means to pay. Hence, we should endeavour to address those traits which are of priority to the needs of poor people living in more marginal environments.

Yet experience shows that 'management of technology' is often easier to plan for than to achieve. It is very difficult to control the distribution of GM products, once they start being grown in any quantities. This year, farmers in the UK found that a large batch of normal seed had, in fact, been polluted with a significant GM seed stock. Many developing countries have far less capacity for regulatory controls, nor for assessing health and environmental risks.

Lappé and Bailey[2] show that monetary considerations have been driving the direction and form taken by GM technology, at the expense of broader issues of public benefit, long term sustainability and safety. They argue instead that we should be concentrating on mid- to long-term needs, linked to climate change and poverty concerns, rather than GM being harnessed to short term profits. We risk over-dependence on a very limited number of crop types, which will greatly limit our future choices.

But most of the technology and knowledge to work on GM exists in the private sector, and mainly in the six largest agro-chemical giants which dominate the world market. The system of intellectual

property rights and patents means that companies can protect these technologies and reap a profit from their use. Many people however are not happy that companies can patent living organisms, or products derived from indigenous plants that have been known about and cared for long before western companies came and 'discovered' them. In a landmark ruling in June, a US company found its patent for the insecticide derived from the neem tree revoked by the European Patent Office, a small but significant step in contesting the power of private companies to dominate public claims.

In an era of privatisation, and withdrawal of government support for many areas of research, publicly funded science cannot compete with the private sector. But how then can it assure that some of the benefits from GM technology can indeed be channelled to those crops and farming systems upon which poorer, more marginal farmers rely? Rich companies speak of the need to generate more food for rising world populations but, as Lipton notes[3], GM research is being directed by people for whom the interests of poor people can never be a main motive. As a result, GM research is being steered to traits, crops and types of farm which may in fact be harmful to the interests of poorer farmers. Many farmers continue to rely on self-pollinating crops, which means they can save the seed and use it again the following year. Yet, for private plant breeders, such crops provide little profit, since farmers will not need to come back and buy more seed year after year.

Can a deal be struck between private companies and the global public interest? Might private companies be willing to make their technology available for poor countries at a fraction of the cost they charge in richer markets? What kind of bargains can be struck by the international agricultural research institutes (such as ICRISAT, ILRI, and Cimmyt) to provide them with access to new GM techniques, and what will they need to offer in exchange? The only obvious asset in their hands are the considerable gene banks they hold – but is it ethical to trade access to such material, which has been collected and stored as part of our global heritage?

At the Global Forum for Agricultural Research (GFAR) held in Germany in May, activists were much more vocal, berating research systems for being '*plagued by over-staffing, inefficiency and lack of direction (…) a myopic approach and poverty of ideas*'. Devinder Sharma from the Delhi-based Forum for Biotechnology & Food Security argues that researchers must go back to learn from traditional farming systems, to develop better ways of working with farmers rather than seeking to 'educate' them with methods that don't fit their needs. Technical progress for whose benefit? How to ensure technical advances are harnessed to address the needs of poorer people? There are no answers to date.

[1] *From green genes to red herrings: a consumer's guide to GM food, by Alan McHughen, Oxford, 2000.*

[2] *Against the grain: The genetic transformation of global agriculture, M Lappé & B Bailey, Earthscan 1999.*

[3] *Reviving global poverty reduction: What role for GM plants? By Michael Lipton, available from cgiar@worldbank.org*

Debts that won't go away

One year after the Cologne summit of the G8 nations, people are asking what has happened to the much advertised Highly Indebted Poor Country initiative, due to cut debt levels around the world. Of the 40 countries due to receive help, only 9 have seen small reductions in debt service. According to the global debt campaign – Jubilee 2000 – of the $100 billion pledged, a maximum of $15 billion is likely to be cancelled by the end of the year.

Why is progress so slow at resolving the debt problem? Why is it

taking so long for the World Bank and IMF to agree the plans developed by the HIPC group? And why have some critically indebted nations been left off the list for receiving help?

In order to receive debt relief, countries have to carry out a number of measures, as laid out by the World Bank and IMF. These include various forms of structural adjustment, privatisation of state enterprises, and preparation of a poverty reduction strategy. Countries who are deemed to have gone too slowly with these measures have found that agreement on debt reduction has been postponed. Those countries with a change of government, or involved in conflict have also found the prospects for debt relief receding over the horizon.

The HIPC initiative had been presented as a mechanism by which rich countries and institutions could sweep away the impossibly high levels of debt held by the poorest nations of the world, in a gesture of global generosity and solidarity to open the new millennium. But the programme has not turned out to be as generous or effective as had been hoped.

Many point the finger at the Washington-based financial institutions for slowing the process. Obsessed by imposing their own vision of how national economies should be run, they have continued to push for privatisation and cutbacks in government spending. Some countries have found their debt relief slowed as a result of 'poor governance' while others have been told they must revise their poverty reduction strategy to fit the World Bank's own model of what a strategy should look like.

Meanwhile, although the Cologne agreement seemed like a great step forward, it did not promise a 100% cancellation, but rather to bring debts down to 150% of the value of annual exports. However, some poor countries fear that debt relief granted by one set of donors may lead to cuts in funding from others. The World Bank is reluctant to cancel its own outstanding debts since this might jeopardise its triple 'A' status on credit markets, despite being owned and backed by the capital of member governments.

The UN Secretary General, Kofi Annan has called for all donor countries and the multilateral financial institutions to wipe off all official debts of heavily indebted nations in return for clear commitments to poverty reduction, but too few nations and organisations have as yet followed this lead. As Jubilee 2000 argues, the problem has been that the HIPC initiative is designed and controlled by the creditors, who can define who gets what, when and how. The creditors themselves are divided and pursuing conflicting agendas, with minimising cost to their own budgets often predominating over achieving the greater global good. All bodies agree the need for a new way to handle loans in future, since both debtors and creditors have behaved foolishly and irresponsibly in the past. One possible structure could be a Debt Review Body under the auspices of the UN, a body whose membership would balance the differing interests concerned, and whose deliberations would be open to public scrutiny.

For more information contact: Jubilee 2000, 1 Rivington St, London EC2A 3DT. Fax: +44 (0)207 739 2300. Email: mail@jubilee2000uk.org. Website: www.jubilee2000uk.org. See also www.aidc.org.za/j2000/index.html (South Africa) www.uganda.co.ug/debt (Uganda). For more information about national debt campaigns taking place in African countries, please contact Sarah Finch Tel: +44 (0) 207 739 1000 ext. 229.

Land rights in Australia

A *Senior Research Associate with IIED's Drylands Programme for many years, Charles Lane now heads The Myer Foundation, one of Australia's foremost charitable grant giving bodies based in Melbourne. Before moving back to Australia a year ago, Charles had focused particularly on land rights issues in East Africa, having done extensive fieldwork amongst the Barabaig pastoralists of Tanzania. He established Land Matters as a regular channel for information and views in* Haramata*, commissioned a number of landmark studies, such as Issa Shivji's* Not yet democracy: Reforming land tenure in Tanzania*, and organised in 1998 exchange visits by East African pastoral leaders to see how land issues are being addressed in Australia (as reported in* Haramata *no. 32). In this interview, Charles talks about the many difficulties facing land rights in Australia, and how they are being tackled.*

So what is the 'land issue' in Australia?

It really dates back to the arrival of Europeans on Australia's shores more than 200 years ago, and all that followed from the subsequent colonisation of the country. Australian history took a somewhat different path from that of other colonies since, on arrival, the new settlers denied any recognition to the rights of indigenous inhabitants, declaring the land to be 'terra nullius', or 'empty land'. This meant that the entire continent could be taken as property by the British Crown, who then handed out leasehold and freehold titles to settlers. The European maritime powers were eager to explore and acquire new lands, and the uncharted southern continent had been vaguely known of for generations. The British were keen to establish exclusive ownership of this enormous country, thereby denying any claim by other Europeans. But in contrast to what happened in New Zealand and many African countries, there were no treaties drawn up with local people, and no recognition given to customary rights to land.

The indigenous peoples, or Aboriginal Australians, lived by hunting and gathering, often over vast areas of land. Their occupation and use of land did not fit neatly with European notions of boundaries, and demarcation of territory. Their dispersed pattern of social organisation and absence of a single political leadership made it easier for the Europeans to ignore their opposition – unlike in New Zealand where the political hierarchy of Maori clans generated a formidable fighting force for the settlers to reckon with. The doctrine of 'terra nullius' was only finally abrogated less than ten years ago, in the landmark Mabo case of 1992.

Tell us a bit about Australia's indigenous peoples.

Its difficult to know exactly how many people there are. Currently they probably represent between 1 and 2% of the country's 18 million people, though a larger number of Australians have some measure of Aboriginality. As people find out more about their own background and indigenous culture, quite a number are identifying themselves as of indigenous descent. And we now take as Aboriginal peoples those who claim to be of such descent and where an Aboriginal community accepts them as such.

What does land mean to Australia's indigenous people?

Their hunter-gathering pattern of life meant that Aboriginal Australians had to know and understand their land in great depth.

Because of this, they have a very close and intimate association with a small home area, from which they draw succour both spiritually and physically. This strong relationship between people and place forms an essential core to their sense of belonging and myths of origin. While indigenous populations are highly diverse in terms of their languages and culture, they maintain a common mythology regarding the stories linking their beginnings and migrations over this vast and varied landscape. Such stories constitute cultural assets of enormous value in this oral culture; owners of stories pass them down through traditional channels to the next generation of story-holders.

What is the current status of Australia's indigenous peoples?

Until 1967, Aboriginal Australians had no voting rights. They were treated as children, or inferior peoples. In the 1940s and 50s attempts were made to assimilate them into white society, by undermining their own culture. Children of Aboriginal origin were taken away, by force, and lodged in schools and fostered to families elsewhere, so they were brought up in a European culture. These children, now adult, have been known as the 'stolen' or 'lost generation', who grew up in an alien setting, not knowing where they came from, neither part of white society nor able to return to their roots. Currently, there is a process of reconciliation and reparations sought for the many thousands of children who were treated in this way. Australia recently held a national 'Sorry Day' to acknowledge the great wrong which was done. While many citizens of Australia have been keen to take this opportunity of saying 'sorry', the Federal government has so far refused to do more than express 'profound regret' for the hurt inflicted on Aboriginal people.

What's been happening about land rights?

As a result of the Mabo case, the government of the day responded with the Native Title Act of 1993. The purpose of this was to bring order to the law surrounding native title claims. Through the legislation, such claims were confined to crown and leasehold tenure land.

A subsequent claim by the Wik people of Queensland was directed at land that was held as a pastoral lease. These leases concern government land, and can cover enormous pasture areas, often several hundreds of square miles in size, for grazing herds of cattle and sheep. The court decided that the Wik people had rights in the land and waters of the land under lease, according to their traditional laws and customs. As such, they should be allowed to exercise those rights within the leasehold area, in co-existence with the grazier. The ruling in 1996 caused a great furore amongst livestock farmers such that an amendment was made to the Native Title Act to limit the implications of the Wik judgement. Native title is now only allowed on government lands where no leases are in operation.

Hundreds of claims have now been submitted the National Native Title Tribunal which was set up to deal with them. However, progress has been slow as each claim takes an enormous amount of time in terms of background research and lawyers' preparation. So much so that it looks as though the only people who really are benefiting from the current situation are anthropologists and legal experts! There is great frustration and disappointment among claimants about the slow speed with which cases are processed.

The legal situation has been made more complex by the fact that Australia is a federation of states, which can independently develop their own legislation. Hence, we currently have the Miriuwong Gajerrong case in Western Australia where the state court has recognised native title rights to lands covered by pastoral leases, while in

the Yorta Yorta case in Victoria, indigenous claims to the Murray river margins have been turned down. Both cases are now on appeal to federal government and it will be very interesting to see how these contrasting rulings will be reconciled at the federal level.

You have to understand that each state faces rather different circumstances, and political forces. In the Northern Territory, Queensland, and Western Australia, for example, the farming lobby is extremely powerful and may block any legal moves to improve the land rights of indigenous Australians. By contrast, in the states of Victoria and New South Wales, since most land is under private freehold, and much of the population are urban-based, there are fewer barriers to recognising indigenous rights.

How are indigenous people organising to assert their rights?

There are representative bodies – Land Councils – in all major areas with Aboriginal Australian populations. There is an Aboriginal Land Rights Movement, legal services and the Aboriginal and Torres Strait Islanders Commission, all of which represent their interests in a variety of fields. The National Native Title Tribunal and court system handle legal cases, while there is also a large number of smaller organisations and community groups working for indigenous rights. The Indigenous Land Commission has the funds to buy freehold land when it comes on the market for allocation to indigenous peoples' groups or families, and where state land comes to the end of a lease it can also be considered for allocation to Aboriginal Australians.

There are some excellent examples of community conservation in national park areas, such as Uluru and Kakadu, where indigenous people are engaged in joint management of the spectacular natural environment, landscape and wildlife resources of the country. Equally, mining companies must now negotiate in many cases with native title-holders before they can gain access to land for exploration and mining of resources. This is the case with the Mirrar people who are the traditional owners of the land that includes the Jabiluka uranium mine near Kakadu national park in northern Australia.

What can The Myer Foundation do to help advance reconciliation and trust between Australia's different communities?

We are currently considering five funding areas: social justice; the arts; water and environment; beyond Australia (which helps strengthen links with Australia's neighbours in the Asia-Pacific region); and the promotion of philanthropy in Australia. Our work on social justice focuses on ways to redress the imbalance between indigenous Australians and non-indigenous Australians. We aim, for example, to support activities which can shift significantly the perceptions commonly held of indigenous peoples, by paying respect to the sorrows faced by the 'stolen generation', and providing better access to health and education services. We are seeking innovative ways of helping non-indigenous Australians to learn about the major contributions that Aboriginal populations have made and continue to make to Australia's national life. For example, in the past the cattle and sheep farmers depended hugely on the knowledge and hard work of Aboriginal herders. Much Aboriginal art is about land, and the stories linking different people, places and movements. So developing a feeling for Aboriginal art help non-indigenous Australians understand the strong cultural aspects of land, and the different roles which land plays in the life of indigenous peoples. Changing attitudes takes time. Often it takes a new generation brought up with different experiences to shift the prejudices of earlier years. We hope to help make this shift happen.

Perspectives on soil erosion

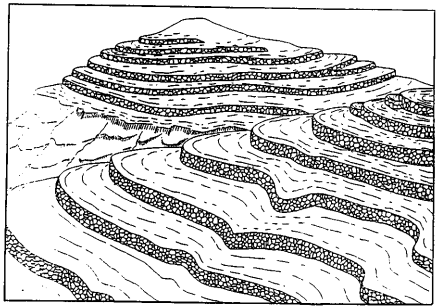
vrije Universiteit *amsterdam*

Over the last two decades there has been a major re-think about ways to tackle soil erosion and land degradation, from an emphasis on estimating losses of soil per hectare and construction of mechanical measures to halt erosion, towards an approach which questions the evidence for erosion and argues for solutions based on combining external knowledge with local skills.

Will Critchley tries to steer a middle course between these two perspectives. He starts from the view that problems of soil erosion remain of great importance for addressing rural poverty in many parts of the world. Rhetoric in favour of new approaches to soil management has been stronger than the data availability needed to substantiate this approach. Hence, the research outlined here aims to bridge gaps in the debate by examining the role of indigenous knowledge for soil conservation with case studies from South Africa and Uganda, developing and testing innovative methods for monitoring erosion processes, and reviewing the effectiveness of terracing systems on steep slopes. It concludes with recommendations for future research and development activities in these fields.

Overall, Critchley acknowledges that indigenous systems can often provide a useful basis for intensifying agriculture, but they are rarely sufficient to ensure a more sustainable farming system without their continued evolution and additional external inputs. Dealing with one problem area (such as controlling erosion) may generate new challenges to be addressed, such as declining soil fertility. If the rhetoric of farmer participatory development is to be maintained, more thought is needed to ensure the greater spread and institutionalisation of these approaches to rural development.

Groundtruthing: New perspectives on soil erosion and conservation in the tropics. W. Critchley. Free University of Amsterdam. Fax: +31.20.444.9095



Level bench terraces with stones risers

Does rain bring rain?

Why do some areas seem to get all the rain, while others stay much drier throughout the rainy season? Is there some mechanism by which damp soil and burgeoning vegetation can attract further rainfall? How do some villages manage to get bumper harvests in a year of drought for others? Is this just luck, or is there some reason for such disparities?

These were the questions asked by researchers examining the relationship between land surface cover and rainfall patterns in south-west Niger. Rainfall data were analysed from a large number of rain gauges set between 7.5 and 15 km apart, and monitored over a two-year period to see how far there was 'persistence' in rainfall patterns.

Persistence means that for a given season, an area which has already had a good rainfall is more likely to receive more rainfall than a neighbouring area where rains have not as yet been so plentiful. The existence of persistence in rainfall patterns has been recognised from anecdotal evidence, but not properly investigated using scientific data, until now.

Persistence may be the result of two processes. First, in the few days following rain, the soil surface is damp and evaporates, creating in certain circumstances a sufficient difference with neighbouring dry areas to

have a positive convective impact on passing storms. The researchers found that 'the heaviest rainfall consequently fell in previously wetter areas, thus reinforcing soil moisture patterns'. Second, over a period of several weeks, where good rainfall has led to the development of greater vegetative growth, this difference in surface contrast with neighbouring areas which have not received so much rainfall may generate further persistence.

The research demonstrates the existence of persistence, particularly for rain falling between mid-July and the end of August. The evidence is highly significant and shows the influence of past rainfall is clearest when intense large-scale storms pass over land which exhibits marked contrasts in surface evaporation. However, there are also some factors which reduce persistence, such as when wind speeds are high and differences between areas minor. These findings have implications for our understanding of land surface-atmosphere interactions, even at small scale differences, such as 10km.

Observational evidence of persistent convective-scale rainfall patterns, C M Taylor and T Lebel. Monthly Weather Review, vol 126 (6), 1998, pp1597-1607.

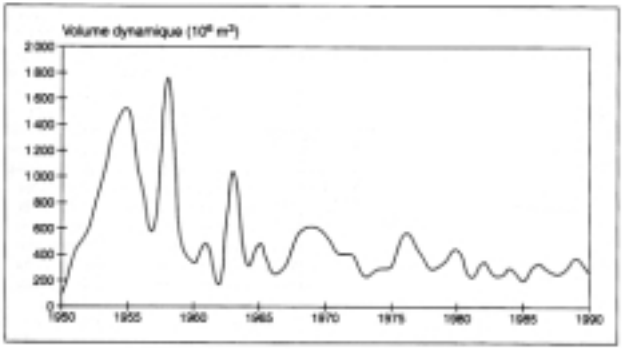
Urban water needs

Rising levels of demand for water from Niamey's citizens are putting severe pressure on available supplies. Currently 88% of needs are supplied by water from the River Niger, which flows past the city. Yet, these flows have diminished greatly since the 1950s and 60s. Comparing the period 1929-68 with 1969-94, there has been a 34% fall in the annual volume of water in the river, and of more than 70% for daily flow rates when river levels are low. The period of low flow rates in the river have increased greatly from 50 days with less than 200m^3/s pre-1969 to more than 100 days in the subsequent period. People still remember with horror the days in June 1985 when the river stopped flowing altogether following the acute droughts of 1984/5.

The remaining 12% of urban water demand is met from underground water sources, which are fed from a combination of rainwater and seepage from the river. However, this water contains nitrates well above the recommended safe levels, as well as being contaminated with microbes, due to poor drainage and sanitation.

Combining the various sources of demand shows that water needs in Niamey can be met so long as water flow remains at 6.6 m^3/s or above. Yet, this daily rate was not achieved in one year out of two taking the period 1969-94. The problem of water scarcity is compounded by demand being at its highest in the late dry season when water levels in the river are at their lowest. Yet Niamey users cannot take all water from the river when their needs are greatest because there are other downstream users, including its neighbour Nigeria. Rationing measures would need to be taken, particularly by the irrigated agricultural sector, which currently uses some 88% of total volume.

So far as domestic and industrial needs are concerned, an upriver dam at Goudel



Dynamic volume of the River Niger at Niamey (1950-1990)

was constructed in 1988-9 to hold back sufficient water to cover 60 days essential water needs. However, the researchers suggest this figure is far too optimistic given very high rates of evaporation, and reckon that 21 days is a more realistic figure. As urban population grows and the system of water pipes spreads, providing access to water at much cheaper rates than from public fountains, demand is likely to grow further. Thus, the Goudel reservoir might be able to provide only 13 days supply in 2006 and only 8 days in 2016.

The researchers argue for a closer look at water policy to manage this limited supply more effectively. This would need to identify ways of diversifying sources of water, including developing small dams on upstream tributaries of the Niger River, and better control of sanitary waste to cut down on pollution of groundwater reserves. While building a big dam upstream of Niamey on the Niger River itself might solve supply problems for a long time to come, such a solution would not be without serious consequences in terms of construction costs, the need to settle people out of the area affected, and the loss of water to downstream users.

Le risque de pénurie en eau potable dans la ville de Niamey (Niger), N Bechler-Carmaux, M Metton and M Lamotte, in Secheresse 1999, vol 10(4): 281-8.

Rays of hope from local studies

This review of African agriculture over recent decades contests the picture painted by many pessimists who describe African farming as in crisis. Rather, Wiggins shows that while growth rates may have been less than hoped for, evidence of crisis is poorly based, given the inadequacies of the data. And, since the mid-1980s, the available evidence shows that increases in agricultural production have matched population growth.

Shifting from national level aggregate production statistics to material from village case studies, the impression of a countryside in a state of dire impoverishment and food shortage is further discounted. Instead, the story at village level is much more diverse, with many farmers coping well with often difficult conditions. Two underlying factors seem to be of importance in explaining the success with which farmers successfully intensify their production – access to markets, and population pressure.

Without good access to markets, farmers find it difficult to cope and must rely to an increasing extent on off-farm activities. With little surplus to trade, few inputs can be bought, and little local economic diversification is possible. Hence, many people rely on migration which deprives the community of labour and thus blocks agricultural investment and intensification. The literature shows the great speed with which farmers pick up on new marketing opportunities where the prices are right, and the very extensive development of trading networks deep into the countryside. Nevertheless, not all farmers are able to take advantage of new market openings, with there often being very great disparities between better-off and poorer farmers in terms of productivity, wealth, and levels of equipment.

Five of the case studies showed the important role played by parastatal enterprises in providing access to markets, credit and inputs. This positive portrayal of state enterprise is in contrast to arguments put forward by those in favour of structural adjustment and liberalisation. Wiggins finishes with key questions to be addressed by future research, which include: how to facilitate better access to markets? What scope for more effective credit systems in rural Africa? And how best to strengthen the linkages between the agricultural and non-farm economy?

Interpreting changes from the 1970s to the 1990s in African agriculture through village studies. S Wiggins, World Development 2000, vol 28(4): 631-662. Contact: Steve Wiggins, University of Reading, Department of Agricultural and Food Economics, PO Box 237, Reading RG6 6AR, UK.

Fresh concepts for new challenges?

The concept of sustainable rural livelihoods has become an increasingly central element in debate concerning rural development for English-speaking researchers and development workers. But what does it mean? Can it help illuminate the issues and options facing poor farmers in developing countries? How might this abstract conceptual framework be translated into a set of workable tools?

The Sustainable Rural Livelihoods (SRL) approach provides an analytical framework to help understand the multi-faceted livelihoods of rural people (see diagram below). It places particular emphasis on the institutional arrangements through which people gain access to those resources needed to create, maintain and improve their livelihoods.

What exactly do we mean by *livelihoods*? According to Carney (1998)[i], a livelihood comprises:

"the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks, maintain or enhance its capabilities and assets while not undermining the natural resource base" (based on Chambers and Conway, 1992).

Analysis of livelihoods and their sustainability requires a close look at the context of a particular location, trends in important variables, and an assessment of policy setting (see column 1 in the diagram). The SRL approach places considerable emphasis on examining both the influence of policies on access to productive assets and the impacts of major trends over time.

Livelihood resources, or 'capitals' (see column 2 in the diagram) include a set of:

- Natural assets, such as soils, water, biological diversity, and environmental services from which livelihoods may be derived;
- Economic/financial capital, in the form of cash, credit, and savings;
- Human capital, such as skills, knowledge, good health and physical capabilities;
- Social capital, in the form of networks, obligations, relations and associations upon which people may draw.

Yet, not everyone has equal access to these capitals. A variety of institutions (see column 3 in diagram) has an influence on who can gain access to valuable assets. Understanding institutions and how they work provides a means to identify barriers and opportunities to achieving more sustainable livelihoods. Such institutions may be both formal and informal – ranging from customary tenure regimes, caste/ethnic identity, and kin-based labour groups to marketing boards, and financial credit systems. These institutions affect who can gain preferential access to particular resources, thus determining the bundle of activities which make up a livelihood strategy. An understanding of institutions and organisations is therefore key to designing interventions which improve sustainable livelihood outcomes for particular groups.

Adopting an institutional approach sheds light on the social processes which underlie livelihood sustainability. It also makes clear that achieving sustainable livelihoods involves negotiation with others, and trade offs between objectives and outcomes. An insight into social relationships, and the power dynamics embedded in these is therefore vital for understanding the options faced by different people.

The SRL framework identifies three broad clusters of livelihood strategies (see column 4 in the diagram): those based on natural resources, those non-NR based, and migration. Broadly, these cover

Sustainable rural livelihoods: a framework for analysis

Contexts, conditions and trends	Livelihood resources	Institutional processes & organisational structures	Livelihood strategies	Sustainable livelihood outcomes
History Politics Macro-economic conditions Terms of trade Climate Agro-ecology Demography Social differentiation	Natural capital Economic/financial capital Human capital Social capital and others…	Institutions and Organisations	NR based Agricultural intensification – extensification Non-NR based Livelihood diversification Migration	1. Improved livelihood: • increased number of working days created • poverty reduced • well-being and capabilities improved 2. Greater sustainability: • livelihood adaptation and resilience enhanced • natural resource base sustainability ensured

Source: Sustainable rural livelihoods: A framework for analysis. Ian Scoones (1998), IDS Working Paper no. 72, Sussex.

the range of options open to rural people, which are combined in a range of different ways. Identifying the resources, or 'capitals' needed to pursue a given combination of strategies is a key step in the process of analysis. For example, access to support in times of food shortage will often be associated with both formal institutions (such as systems for food storage and relief distribution) and informal networks through which people can ask for help from others. Similarly, migration by young men from Mali to Ivory Coast relies on human knowledge, strength and good health, social contacts in distant areas, enough cash to pay the costs of transport, and access to plantation land at their destination. Additionally, the policy contexts in both countries are important factors which influence the risks and returns associated with this activity.

Column 5 in the diagram contains those outcomes which lead to

Key elements of the approach

People, and their existing strengths and constraints, are the starting point of this approach rather than the natural resource base, or promotion of a particular crop.

Addressing poverty is the primary objective, taking poverty as a multidimensional state.

Concepts of risk and variability are explicitly addressed as well as how people try to protect themselves.

Iterative cross-sectoral problem analysis must follow an inclusive process, based on holistic livelihood assessment.

Focus on both policy and field level with clear links between the two.

Project preparation is time consuming. Projects may start as discrete interventions which are gradually developed.

Projects require a long term commitment, usually over more than 5 years.

Partnership is needed between local and national government, private sector, NGOs, CBOs and other organisations.

Taking a broad spatial focus recognises that rural areas are part of a larger system.

Indicators need to be developed over time, in negotiation with different actors, and to be relevant to people's concerns regarding outcomes.

Emphasis is on sustainability as a key aspect of livelihoods.

Environment becomes a mainstream concern within project development.

Capacity building of different actors and organisations is a central objective.

an improvement in people's well-being and the sustainability of the NR base. These outcomes and indicators to measure how far they are being achieved constitute an important part of planning and agreeing a SRL project.

The SRL approach tries to identify 'entry points' which can promote peoples' own efforts to improve their opportunities. These range from conventional options, focussed on supporting access to a particular resource, to more complex combinations arising from an analysis of social institutions and processes. Emphasis is placed on getting the broader institutional and organisation setting right, looking at both formal and informal mechanisms. Such an approach will hopefully improve the effectiveness of conventional interventions, as well as extending the range of options across livelihood strategies.

So, what can a new conceptual approach bring? Does the SRL allow those interested in supporting more sustainable rural livelihoods to become more effective in both understanding and responding to the problems and aspirations of the rural poor?

With any new approach, it is difficult to come to rapid conclusions, since the benefits and difficulties take time to become evident. However, one obvious advantage comes from the need to think holistically, rather than sectorally. Thus, SRL has a lot to offer for people coming from a particular discipline but needing a broader understanding of livelihoods as a whole. The approach also stresses the need to examine a given situation within the broader context of policies and institutions which provide new and changing opportunities, and barriers. At the same time, the approach benefits from forcing attention on the array of different options and chances open to people.

Questions of class and economic differentiation have been ignored by researchers in recent years, probably as they were associated with discredited intellectual and political perspectives. Yet,

their absence has led to a serious neglect of power, how it works, why some people are powerful and others powerless, and the systematic processes at work in society that help explain who gets richer and who gets poorer. The SRL approach moves a little way back towards more explicit treatment of power differences between people, and acknowledges that there are multiple factors underlying differences in life chances. Ethnicity, gender, or the economic status of your family background alone are not necessarily determinant, although in combination, they tend to produce predictable outcomes.

However, detractors of the SRL have a number of valid grumbles. As with all new approaches, the SRL concepts and terminology are being presented as though they constitute something radically new, whereas many argue they are just 'old wine in new bottles'. A new conceptual framework can be both liberating and constraining; the former in terms of helping people think along new lines – the latter by forcing people to adopt a system of thought which may not suit the context they face. New ways of thinking can introduce new dogmas, so that only the 'new' way of thinking, and use of the new terminology is considered 'correct'. Hence, some groups are worrying about how to be sure they can master the new terms sufficiently well to gain funding from their donors. And our French-speaking colleagues find the terms used frankly baffling, given the difficulty of finding adequate translations for both the terms themselves and the intellectual 'baggage' associated with them.

Cynics argue that this regular manufacture of concepts and terminology is a means by which different parts of the academic community compete with each other, for elegance of terminology, and delivery of new jargon to capture donor interests and research funds. Ultimately, it must be for our research partners elsewhere to tell us whether this framework brings new insights, and better forms of support for addressing the livelihoods of the rural poor.

i Sustainable rural livelihoods: What contribution can we make? D. Carney (ed.) 1998. DFID, London.

Sean Sprague/Panos Pictures

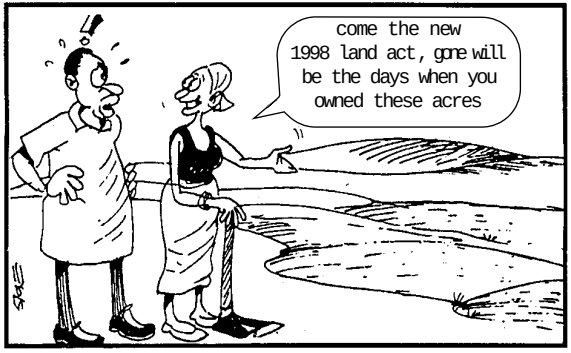
Weaver, Kolokani, Mali

Alliance for land rights

The Ugandan Land Alliance is a consortium of local and international NGOs with the mission of ensuring that land policies and laws take account of the land rights of poor, vulnerable and disadvantaged groups in Uganda. It provides a valuable platform for discussion of differing views regarding the process of land reform, and provides constructive but critical comment on various aspects of the legislation and its implementation. The need for such an alliance became clear during the consultation and drafting of the bills which led to the passing of the Land Act 1998 (see Issue Papers no. 83 & 84 for more details).

The ULA has six major objectives:
• Lobbying and advocacy • Promoting public awareness and dialogue • Publicising and supporting test cases where land rights are being abused • Carrying out research on the impact of land policies on marginalised groups • Monitoring implementation of the Land Act 1998 • Networking and sharing experiences with other actors in Africa and elsewhere.

It has more than 50 members, served by a small secretariat, and gains financial support from a variety of sources. It has recently carried out a review of performance which re-emphasised the ULA's need to keep a strong focus on poor, marginalised women and men. The structure, aims and activities of the ULA provide very useful experience to share with civil society groups in other countries where a similar process of consultation and legislation reform is underway.



Two recent publications are likely to be of particular interest to *Haramata* readers. The first deals with the difficulties of getting formal legal recognition regarding women's land rights, while the second reviews progress with implementation of the Land Act.

Co-ownership of Land by Spouses explains the aims and background of one important clause which should have appeared in the Land Act of 1998. This clause would have enshrined in law the principle of co-ownership of land and the matrimonial home by both or all spouses. The clause, though seemingly adopted in Parliament, was not finally incorporated in the text of the Act. This would seem to demonstrate the deep-rooted opposition to legal reform in this sensitive area. Such reforms go to the heart of relations between different groups, and offer a radical challenge to established interests. The ULA considers these reforms are best promoted through sustained information campaigns and open debate. Some other significant reforms in the promotion of women's rights were supported under the Land Act, however, such as the provision that the principle of gender equity should take precedence over customary tenure rules.

Implementation of the Uganda Land Act 1998 presents the findings of a study into progress with this major area of legislative and institutional change. It focused on interviews with members of District Land Boards (DLBs), Parish Land Committees (PLCs) and Local Councils, to assess their understanding and awareness of different aspects of the Land Act, and the mechanisms being used to deal with land disputes in the absence of the planned Land Tribunals.

The study raises a number of concerns regarding the 1998 Act. One year after the passing of the Act, there were still no regulations to implement it and, as a result, the guidelines that should be helping the DLBs and PLCs in carrying out their responsibilities are not available. Understanding of the Land Act by members of the DLB and PLC, let alone the general public, needs to be greatly improved. Simple versions of the Land Act in local languages would be very valuable for each committee and other local groups. Clear guidelines on who is going to meet the operational costs of the land committees, their mandate and accountability are also lacking. Very few people knew of how to access the Land Fund, which aims to support land purchases by community groups.

On the positive side, most felt that the provisions of the Act went a long way towards improving security of tenure and encouraging investment, which should help reduce poverty. Clarifying the status of tenants was also seen as very positive, though some felt that rents had been fixed at too low a level and should take account of the area of land under tenancy or loan. On the whole, the Act was seen as a major step forward, given the vesting of all land in the citizens of Uganda and legal recognition of customary tenure.

Contact Rose Mwebaza at the Uganda Land Alliance, PO Box 26990, Kampala, Uganda. Tel: +256.41.531824. Email: ULA@infocom.co.ug

Land reform in Africa

Events in Zimbabwe show the 'thoroughly political nature of land' and the central importance to governments of being able to control and distribute land to political allies. Wily's review of land reform programmes in eastern and southern Africa highlights many promising developments while reminding the reader that governments are unlikely to relinquish their powers over this valuable resource (see end notes for details).

Almost all countries in the region have been reviewing legislation and administrative arrangements concerning land, often linked to fundamental constitutional changes and the establishment of decentralised systems of local government. Other aims have included wishing to jettison colonial property laws, free land from customary 'constraint' so that it can be bought and sold like any other commodity, and redress great inequities in land holding size. Often such reforms have also been linked to changes in natural resource legislation regarding forestry or wildlife management.

Although the circumstances of each country are widely different, a number of common themes emerge. While recognising the importance of 'stakeholder' participation, consultation on reforms has usually been very limited. And, where commissions of enquiry have been carried out, in order to listen to the views raised by people around the country, their recommendations are often ignored. Such was the case with Professor Shivji's report in Tanzania in 1992, and that carried out by Professor Rukuni in Zimbabwe in 1995 (see *Haramata* 35, pp. 6-7). More thought is needed to find ways of getting local voices and perspectives into national debates, and encourage governments to see these inputs as of positive value rather than a source of criticism.

Each country is having to resolve very serious questions about the kind of land rights system they wish to introduce, such as: should land be vested in the state or its citizens? How freely should land be made available through the market, and to foreigners? Should customary rights be recognised in law, and how to deal with secondary rights-holders, such as women, pastoralists, and agricultural tenants? How much money should be allocated to the land reform process,

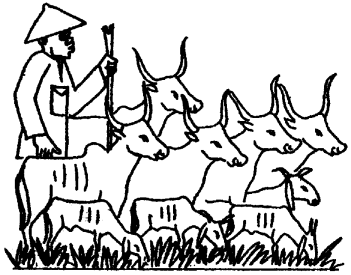
does it require major new structures, or can it build on existing institutions?

Wily sees particular progress with the recognition of customary rights, a great achievement given their remarkable persistence in the face of neglect for many decades. Thus, for example, in Uganda, Tanzania and Mozambique, new tenure laws are recognising land obtained through customary means as 'legally tenured', which can then be accorded title. Progress is also being made towards accepting that groups can hold title to land rather than this only being possible for individuals. As a result, finally governments are recognising local communities 'as both the rightful and more effective owner-managers' of village woodlands and pastures.

The vesting of ultimate land ownership remains politically problematic. Only in Uganda has ownership been vested in the citizens of the country. Elsewhere, central government has retained ultimate ownership, with the president acting as trustee 'on behalf of' its citizens. As Shivji argued for the case of Tanzania, 'this significantly undermines democracy as a whole and transparency in government administration, thus creating conditions for abuse of power, corruption and lack of accountability' (p.113). Land reform is bound to be a long, slow process with the pace dependent in part on continued democratisation processes.

Land tenure reforms and the balance of power in Eastern & Southern Africa, Liz Alden Wily (2000). Natural Resource Perspectives no. 58, Overseas Development Institute, London. Fax: +44.207.393.1699. nrp@odi.org.uk

See also Shivji, I (1998) Not yet democracy: Reforming land tenure in Tanzania. HAKIARDI & IIED, London. Evolving land rights, tenure and policy in Africa edited by Toulmin & Quan, reviewed in the Books section, and Issue Paper no. 96 accompanying this edition, Land Reform North and South.



Managing the range: whose responsibility?

This question has exercised drylands development policy in Africa ever since colonial times, and is now of special importance in the face of decentralisation and tenure reforms currently sweeping the Sahel. The debate essentially revolves around two central issues which are closely interrelated: the degree of control to be accorded by government to local people, and the type of tenure and management arrangements that are best suited for the sustainable management of rangelands.

A regional workshop to debate these issues is to be held in Niger, October 2-6, 2000. Participants at the workshop *"Managing rangelands: what scope for the future?"* will include all stakeholders of Africa's rangelands: herders, field staff implementing range management projects, government extension agents, range management scientists and policy makers. Case studies of the different approaches to range management currently in use will be presented and discussed with a view to identifying future options for the management of these areas.

If you would like to know more about the workshop, please get in touch with Dr. Eric Tierces, DED, and BP 11895, Niamey, Niger. Email: leffnig@intnet.ne

Migration's role in sustaining livelihoods

Migration is frequently portrayed as a strategy which damages the rural economy, by taking young men away from farm activities and bringing little in return. Yet, as can be seen from rural Mali, migration can play a centrally important role in household strategies, and feed capital into agricultural investment. Here, Mr Sidiki Diarra[1] presents the positive role that migration plays for farming households in the Malian Sahel, though not all households reap the same benefits from sending their members away to find work.

In the village of Dalonguebougou in central Mali, pursuing migration as a strategy can lead to many different outcomes for livelihoods, depending on the person involved and the circumstances they face. This millet-growing village in the drought-prone rainfed area of Mali, lies to the north of the cotton zone and is distant from the irrigated lands of the Office du Niger. A short rainy season provides a few months of rainfall before many dry months, when a large proportion of the village travels to find work elsewhere.

The first migrants were young men who set off to find cash to pay taxes in the 1920s and 30s. They sought work in the groundnut basin of Senegal, where they worked as sharecroppers. It was a long walk for them, taking several weeks, so they tended to spend a year or two away before returning to their homes. Migration earnings were also of great importance to enable the purchase of equipment – ploughs, bicycles, carts – as well as cattle and donkeys in the 1950s and 60s. The drought years of 1973-4 and the mid-1980s saw particularly high levels of migration, as many families sought whatever work and food they could, in neighbouring villages, or more distant areas.

Until the mid-80s, if women and girls travelled to find work, this was to villages close-by where they could find relatives with whom to stay. Here, they may spend several months harvesting and winnowing the new crop of grain, receiving payment in millet. At the end of their stay, they can amass up to 500kg or more of cereals to take back home. In this way, they can gain supplementary food to carry them through to the next farming season. An unmarried girl also hopes by these means to provide for some of her trousseau – the stock of goods she will take to her husband's home following her marriage. In the last 15 years, however, many younger women have been travelling to work in towns, usually as a servant, or in a shop. They get miniscule wages – often no more than 5,000 CFA Francs a month (equivalent to US$8) in cash on top of food and a place to sleep – and work very long hours. It is not uncommon for a girl to become pregnant during this time away, which makes it difficult for her to return home.

Men pursue a wider range of migration activities. They weave cloth, work as builders, and make bricks wherever they travel. They may also seek farm work, such as clearing land, weeding, cutting and transporting the harvest. The irrigated rice and sugar cane areas give much needed work once the millet harvest has finished, while those willing to travel further afield, go and dig wells for new settlers, often Malian farmers, in Ivory Coast. Occasionally, news comes of gold or diamonds being found in the south-west of the country and young men rush from all sides to try and make their fortune. A few learned men are renowned for their secret knowledge and ability to tell fortunes. Once their reputation has been established, they can earn a million CFA Francs or more from a few weeks in Bamako, Mali's capital city.

Migrants tend to go where they already have contacts, or friends from previous visits. Social capital is vital to ensuring a successful voyage. Youngsters on their first trip away are usually accompanied

by an older relative who helps introduce them to the people and places with whom they need to become familiar in future. Once away from home, migrants from the same area keep in touch and provide each other with mutual support, in case of need. In this way, they can maintain contact with their village and receive news of their family. It is very difficult to disappear completely, so that when the migrant's family have become impatient with their prolonged absence, they can usually track them down without too much difficulty.

Photo: Mike Goldwater

Setting off on migration

The decision to go on migration and the use made of earnings so acquired is rarely an individual matter alone. Rather, the migrant will discuss his or her plans with the family head before setting off, and give an account of their success on returning. Unmarried men will set aside a large share of their earnings to give to the household purse, and most especially to cover costs of their forthcoming marriage. A small sum may be kept to keep the young man in cigarettes and other treats for the next few months. Money raised by older married men tends to support the many other costs the household needs to face, such as a new plough or oxen pair, as well as the annual burden of paying taxes.

For a village such as Dalonguebougou, which continues to generate good harvests of millet, almost all migrants – whether men or women – return home as the heat of the long hot season gives way to thunder, reminding them that the first rains will soon arrive and their labour is needed to sow the family's fields. Of all those studied who went away on migration during the dry season, 95% came home in time for sowing. Of the very few who stayed longer, an unresolved family dispute often provided the cause for their continued absence.

Larger households are much better able than small families to benefit from migration, since they can let several young men travel away for the long dry season while retaining enough help at home for the other tasks which need to be done – clearing new land, watering the cattle, making bricks and repairing houses, etc. For smaller households, a starker choice must be made between the search for cash and making sure all will be ready for the next farming season. Often women must bear a heavier burden of work by staying home so that their menfolk can earn cash elsewhere.

Migration has been an important strategy for many rural households by which to supplement agricultural income. Analysis of institutions, such as domestic family relations, is essential in understanding who does well from exploiting this source of income (see also pages 12-15, this edition of *Haramata*). Where possible, people try to ensure that migration supports the farm economy, with migrant's earnings often used to purchase the equipment and livestock necessary to maintain an effective household business. Being part of a large and diverse household provides greater opportunities for the benefits from migration to strengthen the interests of both family and individual.

[1] Mr Sidiki Diarra took part in the Sustainable Rural Livelihoods research programme in Mali, reported in more detail in Issue Paper no. 97, accompanying this edition of Haramata. See also K. Brock and N. Coulibaly, Sustainable Rural Livelihoods in Mali, IDS Research Report no. 35, 1999. This work was funded by the UK's Department for International Development, (DFID) and coordinated by IDS, Sussex and IIED.

Pastoralism in a global age: Livestock marketing and pastoral commercial activities in Kenya and Burkina Faso. **Fred Zaal. Thela Thesis. pp. 289. ISBN: 90-5538-036-9. A copy of the book can be ordered from: Thela Thesis, Prinseneiland 305, 1013 LR Amsterdam, The Netherlands. Fax: +31-20- 6203395. Email: office@thelathesis.nl**

"Pastoralists love their animals more than their children… they won't even sell one cow to buy medicine for a sick child… and they'd rather wear rags than take a steer to market". Common enough statements from farmers, civil servants and even project workers when talking about pastoral people in Africa. Pastoralists have long been considered to be "economically irrational" keeping vast herds for reasons of prestige rather than productive use. A more sympathetic opinion might explain this unwillingness to sell animals by the fact that market conditions were unfavourable, and that if the terms of trade changed to the herders' advantage they would willingly off-load animals. Such an assumption was put to the test in Kenya in the 1980s, with the not very surprising result that higher livestock prices relative to other products meant that herders only had to sell one animal instead of two to buy the goods they wanted!

A lot of sound empirical research exists demonstrating that herders raise animals not so much for sale, but to produce milk and other products for family subsistence. Cattle, in particular, also provide one of the best, though high risk, forms of investment in the absence of alternative banking systems in rural areas; and are an important currency for forging and maintaining social and political relations essential to mobile livelihood systems. However, what is less well known is the role of the market place in pastoral livelihood strategies. A common perception persists that herders are not particularly involved in, nor affected by commercial forces, but is it true?

The research outlined in this book focuses on the commercial activities of two groups: agro-pastoral Fulani in the department of Oudalan in northern Burkina Faso and the more pastoral Maasai in Kajiado District in southern Kenya. The research was primarily concerned with understanding the relevance and importance of the market and its conditions, for pastoral and agro-pastoral livelihoods. Of particular concern was the calorific terms of trade between livestock food products (milk, meat), other foods, particularly grain, and the degree to which they affected household decision making.

A key result of the research was that the calorific terms of trade generally were good, and had been well exploited by herders, a fact that had not always been fully recognised by researchers and policy makers. This explains how Fulbe households even in the drier Sahel use the market to survive off relatively smaller herds than the Maasai in Kajiado. Sample households in Burkina Faso were getting between 80-90% of their income from livestock sales of which between 30-45% was spent on food. The importance of the market is particularly critical for the poorer households who have fewer animals and thus less access to milk. The Maasai in Kajiado, however, because of larger herds, were less involved in the market for the purchase of food, but rather for purchasing additional animals and livestock inputs such as veterinary drugs.

The use of animals for non-commercial uses was also investigated. In Burkina Faso,

although maintaining social relations through animal exchanges and loans was considered to be important, most families simply did not have large enough herds to do so. The Maasai sample, with their larger herd sizes, were better able to adhere to these cultural practices than the Fulbe, a factor that might help them preserve their cultural identity in the face of change.

Finally, market conditions in both Kenya and Burkina Faso, are very vulnerable to external forces and affected by a range of conditions including climate, government policies of exchange rates and tenure systems, and currency devaluations. Local herders are thus affected by global events over which they rarely have any control.

***Evolving Land Rights, Policy and Tenure in Africa*. Toulmin, C. and Quan, J.F. (Eds) 2000. DFID/IIED/NRI, London. 336pp. ISBN: 1-899825-51-7. It costs £12.50 + postage for OECD countries (please contact: bookshop@iied.org), and is free of charge for non-OECD countries (please contact: drylands@iied.org).**

The government of every country has – at some time – to consider and define its land tenure policy. Most governments have specific laws related to land, separate from laws about other property, and constantly receive suggestions on how land tenure and the rights to property can be improved and how these rights should be adjudicated and administered. Whether they want to or not, politicians, civil servants, academics and representatives of external donors all get sucked into discussing and making decisions about land issues. Staff of non-governmental organisations, both international and national, are also becoming involved in the debates. The formal education that most of these actors undergo does not include land tenure in its curriculum. By force of circumstances, they find themselves involved in land tenure issues but with inadequate background knowledge and intellectual preparation. Sometimes they have heard that some other neighbouring country has carried out a successful reform of its land tenure, but what exactly this neighbour did and how truly successful the result is difficult to ascertain.

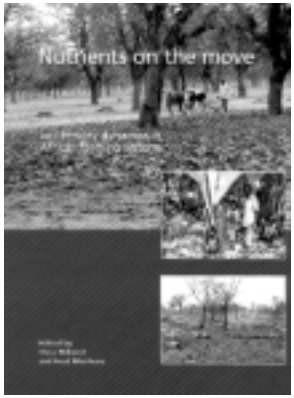
Evolving Lands Rights, Policy and Tenure in Africa goes a long way to meeting the need, of the actors listed above, for background information and understanding about the key issues in land tenure and recent experiences with tenure reform in Africa. The book derives from a workshop held at Sunningdale, UK, in early 1999 which brought together policy-makers, researchers, and civil society representatives from across Africa to debate issues in land tenure policy and reform. It is over 300 pages long, which requires some dedication to tackle all at once, but each of the 14 chapters, written by eleven different authors or joint authors, stands on its own and can be read separately. The text is clear and prior specialist knowledge by the reader about land tenure is not needed. This is not, however, light reading. The only language of the book is English and there are no immediate plans for a French version, which is a pity.

The book first examines the linkages between land reform, economic growth and poverty reduction. It discusses the legislative and practical challenges of tenure reform and the harmonisation of customary and formal land rights in both anglophone and francophone Africa. It covers the management of Africa's commons, the opportunities for and constraints on women's land rights; the institutional arrangements for securing and managing land rights; the challenge of decentralisation; and those policy and implementation processes now under way. There are regionally focused chapters on subjects where there has been a regional concentration of effort or debate, and it is particularly interesting to see how a common set of land

tenure issues tend to emerge in every African country. All the common tenure issues (apart from urban land tenure) receive well-informed and thoughtful treatment. While there is an underpinning of theory and value judgement, these seem to derive from and are supported by firm evidence. *Reviewed by: Stephen Sandford.*

Nutrients on the move – Soil fertility dynamics in African farming systems. **Hilhorst, T. and Muchena, F.M. (Eds.) 2000. Published by IIED, 3 Endsleigh Street, London WC1H 0DD, UK. Fax: +44-207-388-2826. It costs £12.50 + postage for OECD countries (please contact: bookshop@iied.org), and is free of charge for non-OECD countries (please contact: drylands@iied.org).**

The last decade has witnessed rising concern over the extent to which soils in Africa are becoming degraded and the threat that this poses to agricultural production, livelihoods and the environment. However, while studies of soil fertility at national level present negative nutrient balances, the picture is more varied at field, farm and village level where households have developed a wide range of management strategies. Measures to support better soil husbandry need to consider what is actually happening at farm and field level, how the management of soil fertility varies between different fields, farmers and locations, and the implications of this diversity for design of interventions aimed at improving the management of soil fertility.



This book presents a series of case studies on soil fertility management strategies from six African countries: Burkina Faso, Ethiopia, Kenya, Mali, Uganda and Zimbabwe. This research was carried out in the context of the project *Improving Soil Fertility in Africa: Nutrient Networks & Stakeholder Perceptions*, also known as NUTNET, which supports a network of several African NGOs, universities and national agricultural research centres and their counterparts in the UK and the Netherlands.

The case studies provide details of the wide range of soil fertility management practices currently implemented by small-scale farmers in Africa. They underline the importance of 'niche management', where certain fields are deliberately nurtured at the expense of others. They also illustrate the dynamics of soil fertility management and analyse the factors affecting incentives to maintain and replenish soil nutrients at farm level. Consideration is given to how certain socio-economic and institutional conditions may either facilitate or hinder good practice, and to the requirements needed to increase the effectiveness of policies and interventions to support farmers. The studies show that single monolithic policy approaches are seldom the best response to the diverse and often site-specific problems and opportunities faced by farming households.

Local forest management in the Sahel: Towards a new social contract. **Paul Kerkhof. 2000. SOS Sahel, 1 Tolpuddle Street, London N1 0XT. Fax: +44-207-837-0856. ISBN: 1 901459 28 4.**

Political changes in the 1990s have brought the recognition that rural Sahelians can manage forestland effectively. While there is still unfinished business, the contours of a new social contract are becoming apparent. Local control over woodland resources appears to be both more efficient and equitable than when handled by the state

forestry service, as long as the local management institution is set up to be representative of the various user groups. Local management systems can be far more responsive than the state to the strong ecological and economic variability which characterises the Sahel. A rich diversity of community institutions, leadership patterns, rules and enforcement mechanisms is depicted in this report. But in order for such initiatives to maintain their momentum, it is vital that the broader legal framework evolves to support these new institutions.

***Codes locaux pour une gestion durable des ressources naturelles.* [Local conventions for natural resource management]. 2000. Rural Development Division, GTZ Postfach 5180, 65726 Eschborn, Germany. Fax: +49-6196-791115. Email: karl-peter.kirsch-jung@gtz.de (nb: only available in French).**

Land is a resource with multiple values, used by a range of different rural and urban actors. Where rural people are uniquely dependent on land resources for their livelihoods, they have the greatest stake in managing them sustainably. The failure of externally imposed regulations has led to the adoption of new approaches in natural resource management, starting from a community base. In West Africa, communities and villages have been encouraged to establish ground rules for the management of the resources to which they have common access. The agreements and regulations are sometimes referred to as local conventions (see Issue Papers 74 and 78).

The German technical agency GTZ has brought out a book of their experience in 18 areas in Senegal, Mauritania, Burkina Faso, Benin, Niger, Chad and Madagascar, where local codes or bylaws have been elaborated. The book groups the different cases into four different themes: the management of village lands, pastoral lands, forests, and areas including lakes and plains that are common to a broader, less coherent group of users. What these codes have in common is the aim of sorting out the rights and responsibilities of all resource users and setting down the procedures and sanctions in the case where the rules are contravened. In some cases, fines are set down in some detail, while in others the codes simply identify the appropriate authority and procedure for dealing with misdemeanours. A few conventions also set out provisions for taxation of the resources in question. This book sets out, in full, the text, tables and diagrams contained in the local codes, providing an extremely rich and diverse repertoire of locally developed management instruments.

The community rules OK

***Rethinking soil and water conservation in a changing society: A case study in Eastern Burkina Faso.* Valentina Mazzucato and David Niemeijer. 2000. Tropical Resource Management Papers 32. pp. 380. Contact: Wageningen University and Research Centre, Department of Environmental Sciences Erosion and Soil and Water Conservation Group, Nieuwe Kanaal 11, 6709 PA, Wageningen, Netherlands. Fax: +31-317-484-759**

Desertification narratives have undergone radical rethinking in the 1980s and 90s, steering development professionals away from a restricted techno-economic approach. Received wisdom now sees soil

and water conservation as not only a technical issue, but also as a socio-economic and environmental one. This book argues that to open new perspectives, a reconceptualisation of both the land degradation problem and soil and water conservation based solutions is required. This not only points at problems with the current diagnosis and remedies, it can also help us to understand the ways in which local agricultural practices continue to evolve.

Land degradation is very difficult to measure directly, and relies on proxy data, such as crop yields agricultural productivity, biodiversity, and soil fertility. However, the dynamics of such indicators are far too complex to catch in a simple degradation figure, such as the number of ha affected by desertification per year. These case studies in Burkina Faso's Eastern Region, find no evidence of land degradation in the research area despite the presence of high population growth often thought to be a harbinger of land degradation. It is more appropriate, therefore, to describe the change in vegetation cover and species composition in terms of a dynamic changing landscape, rather than in terms of land degradation.

The study looked at the technologies that farmers use, and the economic principles that guide their decisions as well as the social institutions that mediate access to resources necessary for an environmentally sustainable system and how these have changed over time. Farmers were found to have intensified their agricultural system in ways that are often ignored by analyses based on the work of Boserup or Malthus. In response to changing social, economic and environmental contexts, farmers have intensified production not only by adaptive management of their agricultural practices, but also through changes in their social organisation around the land, which has led to higher levels of productivity and environmental sustainability. The book is well written, carefully argued and should provide interesting food for thought for those interested in battling prejudices still prevalent in the land degradation debates.

***African Perspectives: Practices and Policies Supporting Sustainable Development.* David Turnham (Ed.). 2000. Scandinavian Seminar College. Söbredden 14, DK 2820 Gentofte, Denmark. pp. 127. ISBN: 0-7974-2031-2. See website: www.cdr.dk/sscafrica.**

This publication is based on the views of 50 African experts who participated in a continent-wide project, led by the Scandinavian Seminar College to present African perspectives on the links between key development and environment objectives, based on practical experience.

The views and conclusions presented here draw on more than 30 case studies of positive experiences taken from a large number of countries. The key policy issues were identified as a) Reform of government to advance sustainable development b) Empowering people through the recognition of their property rights c) Achieving a better utilisation of the African resource base through a blending of indigenous knowledge and skills with modern approaches d) Realising the great potential in Africa for community led sustainable development through encouragement and support of community based institutions. The papers deal with the broad political framework and the critical role of tenure security, indigenous knowledge systems as a foundation for technical progress in Africa, and what it takes to mobilise African communities to make effective use of the resources for sustainable development. The case studies demonstrate a wealth of ongoing innovation in recent years as Africans themselves come to grips with ideas about sustainable development and grapple with the implications in the African context.

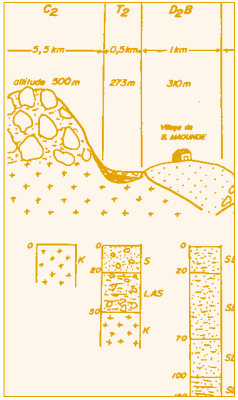
Managing soil fertility in the tropics

Haramata readers may remember our advertising the draft of this invaluable guide on soil fertility management last year, during its field-testing phase. Now available in boxed format, the Resource Guide is intended to provide a user-friendly means to gather, manage and analyse information on soil fertility management, through a participatory learning action-research (PLAR) process with farmers. It contains five elements: Building common knowledge – a textbook for participatory learning and action research; PLAR and resource flow analysis in practice – case studies; Field tools for PLAR; the CD-ROM and user's guide; and Detailed field tools for PLAR.

The Resource Guide is likely to be of value to a wide range of readers, from those seeking support to carry out a PLAR process with farmers; those requiring a stronger analytical base for understanding how agricultural systems work; and researchers working on farming systems analysis more generally.

Managing soil fertility in the tropics. A Resource Guide for Participatory Learning and Action Research. Toon Defoer & Arnoud Budelman (eds) 2000. KIT, The Netherlands. Fax: +31-20-5688-286. Email: kitpress@kit.nl

Natural resources in the Gourma



This publication looks at land surface forms and soils, state of vegetation, biomass production and the potential of pasture in the Gourma region of north-east Mali. With several detailed maps (including a 1:500,000 scale map), colour photographs and diagrams, it gives a detailed breakdown of the physical properties of the land.

Contact: Alida Boye, Centre for Development and Environment, University of Oslo, Box 1116 Blindern, 0317 Oslo, Norway. Email: alida.boye@sum.uio.no

Equitable commons management

Securing the commons is a new series of working papers supporting the Shared Management of Common Property Resources programme, jointly managed by SOS Sahel and IIED. This programme aims to inform ways in which CPRs can be managed in more equitable and sustainable ways in Africa's drylands. Of particular concern is to ensure that mobile groups such as transhumant herders, who depend on seasonal access to these resources, can play an active role in their management. The first two papers are titled: *Who's managing the commons?* by Ced Hesse and Pippa Trench, and *Hannu Biyu Ke Tchuda Juna – Strength in Unity. A case study from Takieta, Niger,* by Gill and Kees Vogt.

Contact: Pippa Trench, SOS Sahel. Fax: +44.207.837.0856. Email: pippat@sahel.org.uk

Commons Southern Africa is a newsletter offering analysis and information on community based natural resource management in Southern Africa, managed by the Centre for Applied Social Sciences (University of Zimbabwe) and the Programme for Land and Agrarian Studies (University of the Western Cape, South Africa). It is published biannually. The April edition contains interesting pieces on governance and natural resource management, as well as links to networks and events.

For details, send an email to: nmohamed@uwc.ac.za.

IN MEMORIAM

Adrian Adams 1945-2000

We were deeply shocked and saddened to hear of the death of Adrian Adams in a car crash in Senegal on August 2, 2000. Adrian had been living in Senegal since the early 1970s where she had been a pillar of the farmers' movement in the Bakel area of the upper Senegal River valley. Adrian was an ardent advocate in favour of a new future for the Senegal River valley which would recognise the knowledge and skills of local people, and their right to determine how best to use the valuable resource represented by the water from the river. She was very critical of the intervention by government and donors in trying to manage and control the river water, through dams and irrigation projects, with the adverse social, economic, and environmental consequences that this frequently entailed. *Haramata* readers will remember her Issue Paper no. 93 – *The River Senegal: Flood management and the future of the valley*, published with the last edition of our newsletter in March 2000. It is particularly sad and cruel that she should have died as she travelled to Dakar where she was due to meet the ministers in Senegal's new government, to explain the popular views which were succinctly summed up in her latest publication, *Quel Avenir pour la Vallée?*, which appeared just the week before her death. Let us hope that Adrian's strong commitment to the valley's peoples will live on and be taken up by the government and others.

Our thoughts and sympathies are with her family, colleagues and many friends in Senegal and around the world.

HARAMATA

is published by the International Institute for Environment and Development (IIED)
3 Endsleigh Street,
London WC1H 0DD, U.K.
Tel: (+44 20) 7388 2117
Fax: (+44 20) 7388 2826
e-mail: drylands@iied.org
http://www.iied.org

Editorial team:
Ced Hesse, Thea Hilhorst, Judy Longbottom, Nicole Kenton, Camilla Toulmin, Bara Guèye, Rebeca Leonard, Christèle Riou

Production: Bridget Tisdall
Printed by Russell Press, Nottingham

Subscriptions:
High-income countries/individuals: 1 year (3 issues in 2000), US$33/£stg.20/FF.200, incl. airmail postage. Africa and the South: free on request.
* Subscriptions include at least two Issue Papers distributed with each issue of the bulletin.

Haramata gratefully acknowledges the financial support of the Ministry of Foreign Affairs, Denmark.

ISSN 0964-6973
IIED is a registered charity. Charity No. 800066.

The genie's out of the bottle!

On 26 June 2000, the first draft of the entire unravelled human genome was simultaneously published by Celera Genomics, a private company, and a group of publicly funded laboratories, referred to as the Human Genome Project. Piecing together a directory of the genome (3 billion letters long!) is a truly momentous achievement. It opens the way for the identification and the eventual understanding of our genes, the codes that determine the functioning and characteristics of each of the cells in our bodies. In fact, genes make up only a small fraction of the genome (the DNA contained in our chromosomes), the remaining 98% is often charmingly referred to as "junk" (nobody really knows what it does but so far it doesn't look too important…). Science still has a long way to go on this new road of discovery.

In principle, the study of the human genome could help people suffering from simple diseases, such as sickle cell anaemia, which is caused by the breakdown of a single gene. This disease is relatively common in West Africa and genetic research could bring major benefits for this area in particular, as well as for other regions in the tropics. It has been known for some time that the same genetic fault which causes this type of anaemia also confers immunity from malaria. Hence, research in this field might bring multiple and substantial benefits to millions of people. Concerted research in the battle against HIV/AIDS may also well use insights into the human genome to investigate why some people are immune to the virus. It is, however, rare that

Borin Van Loon

attention is drawn to diseases of primary concern in the developing South. The scientific spotlight is now turning to more complex disorders, and diseases such as breast cancer, heart disease or Alzheimer's. These present themselves predominantly in later life and are therefore more prevalent in richer countries. One genomics company is even concentrating its efforts on tackling obesity!

A single genomics company has already received patents on more than 300 DNA sequences and others are not far behind. But should genetic information be subject to such 'privatisation'? We need some means of balancing private interests against the common rights of humankind as a whole. So far, neither governments nor activists have come up with a viable proposal for global regulation of this science, which is galloping away with us at an increasing pace. One means of control would be for publicly-funded science to provide a powerful rival source of brain power and creativity to ensure that our genetic inheritance is not privatised for the benefit of profit and a handful of shareholders.